



Impact of Hurricane Katrina on Vaccine Storage

On the morning of August 29, 2005, Hurricane Katrina made landfall along the Gulf Coast near New Orleans. The storm has caused catastrophic damage across coastal regions of Alabama, Mississippi and Louisiana. New Orleans, which has been flooded due to breaks in the levees that protect the city, is being evacuated. Other areas along Katrina's path, particularly the coastal regions of Alabama and Mississippi, suffered extensive damage to homes and public infrastructure. Many other regions, including areas far from the coast, experienced flooding, tornadoes and power outages. In some areas, power has been restored; in others, power outages persist and may be expected to continue for some time.

All of these events have implications for vaccine storage.

In areas where vaccine supplies were affected by temporary power outages, the guidance developed for providers during the 2003 Northeast Power Outage may be helpful:

- Do not open freezers and refrigerators until power is restored.
- Most refrigerated vaccines are relatively stable at room temperature for limited periods of time. The vaccines of most concern are MMR and Varivax, which are sensitive to elevated temperatures.
- **Monitor temperatures; don't discard; don't administer affected vaccines until you have discussed with public health authorities.**
- If the power outage is on-going:
 1. Keep all refrigerators and freezers closed. This will help to conserve the cold mass of the vaccines.
 2. Continue to monitor temperatures if possible. Do not open units to check temperatures during the power outage. Instead, record the temperature as soon as possible after the power is restored, and the duration of the outage. This will provide data on the maximum temperature and maximum duration of exposures to elevated temperatures.
 3. If alternative storage with reliable power sources are available (i.e., hospital with generator power), transfer to that facility can be considered. If transporting vaccine, measure the temperature of the refrigerator(s) and freezer(s) when the vaccines are removed. If possible transport the vaccine following proper cold chain procedures for storage and handling or try to record the temperature the vaccine is exposed to during transport.
- When power has been restored:
 1. Record the temperature in the unit as soon as possible after power has been restored. Continue to monitor the temperatures until they reach the normal 2–8 degrees Celsius range in the refrigerator, or -15 degrees C or less in the freezer. Be sure to record the duration of increased temperature exposure and the maximum temperature observed.
 2. If you receive vaccine from your state or local health department, they may be contacting you with guidance on collecting information on vaccine exposed to extreme temperatures.
 3. If you are concerned about the exposure or efficacy of any of your vaccine stock, do not administer the vaccine until you have consulted your state or local health department.

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4. Keep exposed vaccine separated from any new product you receive and continue to store at the proper temperature if possible.
5. Do not discard any potentially exposed vaccine. We will be working with the vaccine manufacturers to determine which vaccines may be viable.

For additional information and guidance please contact your state or local health department.

For more information, visit www.bt.cdc.gov/disasters,
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

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